



Graph Reading Standard of Manual Gear Measurement Devise

KES R- I004A

(EST)1989-03-06

(RVD)1991-06-01

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1. Application Scope

This standard is using for graph reading measured by manual gear tester when inspect super gear and helical gear which have been used at KIA Motors..

2. Purpose

This is the purpose to unify the graph reading standard measured manual gear tester

3. Inspection Item

- (1) Involute curve
- (2) Lead curve

4. Inspection Application Timing.

- (1) Gear sampling inspection
- (2) After changing the cutter of facilities
- (3) When worker changing
- (4) When process inspection
- (5) Countermeasure when problem occurred.

5. The meaning of Word

Word	Explanation
Spur Gear	This is the cylinder gear parallel to axis and the end of tooth is strait line. Generally, it transfers the rotating movement between parallel 2 axes.
Helical Gear	This is the cylinder gear which has helical line for tooth end. Generally, it transfers the rotating movement between parallel 2 axes.
Tooth Width	The length between axis section surface of tooth.
Tooth Surface	The touching surface of teeth.
Tooth Profile	The section surface of tooth. It is, generally, the axis right angle plane, string right angle plane, axis plane, etc.
Central Distance	The shortest distance between gear axis pair.
Crowning	This is to machine the rounding to tooth end direction.
Pitch Point	The attached point of pitch for gear biting of 1 set gear.
Standard Pressure Angle	The pressure angle of standard rack.
Module	The value to divided standard pitch by π . This is the standard to define the size of gear. The unit of module is "mm".
Tooth Profile Error	Involute to pass the point crossed between actual tooth profile and pitch as standard, the measurement error within tooth profile inspection range measured from vertical direction and total errors amount of sub-axis but, tooth profile error is mentioned for axis vertical angle only.